



PATENT ABSTRACTS OF JAPAN

(11) Publication number: **11261111 A**(43) Date of publication of application: **24.09.1999**(51) Int. Cl. **H01L 33/00**(21) Application number: **10082672**(22) Date of filing: **13.03.1998**(71) Applicant: **OMRON CORP**(72) Inventor: **TAKAHASHI TOSHIYUKI**
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SANO KOJI**(54) LIGHT-EMITTING DEVICE EQUIPPED WITH MONITORING MECHANISM****(57) Abstract:**

PROBLEM TO BE SOLVED: To provide a light-emitting device which is equipped with a monitoring mechanism, where the device can be used on visible light and lessened in size.

SOLUTION: A surface-emitting type semiconductor light-emitting device 20 is provided on a semiconductor photodetecting device 30 equipped with a transparent electrode 31 on its surface, and the upper part of the light-emitting device 20 is housed in a recess 12 of a light guide/reflecting board 10. A recess 13 and a light extracting hole 18 are provided to the light guide/reflecting board 10 which communicates with the recess 12, and a metal film 14 is formed on their inner walls. Most of the light (visible light) emitted from the semiconductor light-emitting device 20 is emitted

to the outside through the light extracting hole 18. A part of the light emitted from the light-emitting device 20 is reflected from the metal film 14 formed on the inner wall of the recess 13 and is incident on the semiconductor photodetecting device 30.

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